

IN THE CLAIMS

Claim 1. (Currently Amended) A method for a Virtual Private Network (VPN) server that is connected to links on a network and handles Internet Protocol (IP) packets of data on the network that will flow over a remote link and manages the use of bandwidth of the remote link, the method comprising the steps of:

assigning, by the VPN server, a portion of the bandwidth of the remote link to at least one application group;

metering, by the VPN server, IP packets belonging to the application group to minimize contention between application groups for bandwidth on the remote link to thereby manage the use of the bandwidth of the remote link by the application groups; and

authenticating and/or encapsulating at least a portion of the IP packets belonging to the application group by the VPN server;

wherein the remote link has a smaller bandwidth than a bandwidth of the links on the network that are connected to the VPN server, and wherein the remote link is remote from the VPN server such that the remote link is not directly connected to the VPN server.

Claims 2-3. Canceled

Claim 4. (Currently Amended) The method of claim 1, wherein the IP packets belonging to the application group share a pre-defined configuration.

Claim 5. (Currently Amended) The method of claim 1, wherein the IP packets belonging to the application group contend equally for the portion of the bandwidth.

Claim 6. (Currently Amended) The method of claim 1, wherein the step of metering the IP packets further includes metering a flow rate of the IP packets going through the server in either direction.

Claim 7. (Currently Amended) The method of claim 6, wherein the step of metering the IP packets further includes rejecting the IP packets if the flow rate exceeds the portion of the

assigned bandwidth even if the links connected to the VPN server have sufficient capacity to transport the IP packets.

Claim 8. (Previously Presented) The method of claim 1, further comprising the step of:
allowing a user to specify the bandwidth of the remote link from a user interface.

Claim 9. (Previously Presented) The method of claim 1, further comprising the step of:
allowing a user to specify the portion of the assigned bandwidth from a user interface.

Claim 10. (Currently Amended) A system for managing use of available bandwidth of a remote link by metering Internet Protocol (IP) packets that will flow over the remote link, comprising:

a Virtual Private Network (VPN) server that authenticates and/or encapsulates at least a portion of the IP packets handled by the system that will flow over the remote link; and

a meter associated with the VPN server that meters the IP packets that will flow over the remote link to implement a contention pool having a portion of the bandwidth of the remote link assigned to an application group to thereby manage use of the available bandwidth;

wherein the remote link has a smaller bandwidth than a bandwidth of ~~the~~ other links on the network that are connected to the VPN server or the meter, and wherein the remote link is remote from the VPN server such that the remote link is not directly connected to the VPN server or the meter.

Claims 11-12. Canceled

Claim 13. (Currently Amended) The system of claim 10, wherein the IP packets belonging to the application group share a pre-defined configuration.

Claim 14. (Currently Amended) The system of claim 10,
wherein the IP packets belonging to the application group contend equally for the contention pool.

Claim 15. (Currently Amended) The system of claim 10, wherein the meter further meters a flow rate of the IP packets going through the server in either direction.

Claim 16. (Currently Amended) The system of claim 15, wherein the meter further rejects the IP packets if the flow rate exceeds the assigned portion of the bandwidth even if the links connected to the VPN server have sufficient capacity to transport the IP packets.

Claim 17. (Previously Presented) The system of claim 10, further comprising:
a user interface that allows a user to specify the bandwidth of the link.

Claim 18. (Previously Presented) The system of claim 10, further comprising:
a user interface that allows a user to specify the assigned portion of the bandwidth.